

FELLOWS-IN-TRAINING & EARLY CAREER PAGE

The Moving Target of Cardiology

When to Commit to Subspecialty Training



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As pathophysiology connects system to system, enabling us to better understand our patients, life's trials and tribulations forge our development and ultimately determine who we become in life. These clinical and personal experiences shape our career interests and guide us toward the field of cardiology. Despite their conviction to be cardiologists, trainees often struggle when facing the early demands to choose a subspecialty. Suffice to say, internal medicine residency does not commonly offer various subspecialized exposure; as such, many trainees are not equipped to make life-long decisions about advanced training when they enter into cardiology training. Although you may not have all the answers when you are applying for a cardiology fellowship, there are general factors to consider.

CHOOSING THE RIGHT GENERAL FELLOWSHIP

There are many aspects that contribute to our ultimate decision on where we should pursue the next chapter of our training (1). Program attributes are important to allow us to garner the clinical experience necessary to become a well-rounded cardiologist. However, some programs are stronger than others in various facets of cardiology subspecialties. It is therefore important to exercise caution when choosing a general fellowship solely upon the prestige and merit of a single subspecialty. The reason for this is simple: people's interests change. Experience during fellowship is fundamental in learning cardiology as well as learning your own likes and dislikes. Trainees must immerse themselves in all venues of cardiology to help compute an

educated solution to their career aspirations. The commitment toward a specific focus should be synthesized once experience allows the trainee to formulate a truly educated decision.

APPROACHING FELLOWSHIP ONE STEP AT A TIME

It is imperative that during the initial phases of general cardiology fellowship, trainees garner the experiences of general fellowship to build a solid foundation of training. A thorough understanding of cardiology, through first-hand experience, is essential to help fellows in training construct a more informed decision on their eventual career path.

SEEK OUT MENTORSHIP

Mentors are integral to the successful growth of the trainee. Although we habitually look for mentors in our specific field of interest, it is essential to also seek guidance outside of particular fields of interest and find support in trusted mentors. Mentors can be instrumental in helping you on the path of self-discovery and connecting you to colleagues and other mentors (2). Remember that your fellow upper-classman trainees possess a wealth of untapped resources of knowledge and experience. These individuals have recently gone through the cardiology gauntlet and are able to deliver timely and unguarded assessments that will allow the trainee to better understand the current climate of cardiology.

UNDERSTANDING THE ADVANCED FELLOWSHIP APPLICATION TIME LINE

The heterogeneity in the application process for cardiology subspecialties even further complicates the trainee's dilemma. Throughout the first nearly decade of training, the processes through which trainees apply for the consecutive steps of training

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are very regimented and centralized. Application systems through internal medicine and cardiology employ the Electronic Residency Application Service, which utilizes a match algorithm to attempt to best match the preferences of both the applicant and the program and is used to help remove some of the unpredictability of the process (3). However, after matching into general fellowship, we are left to figure out the application process for further subspecialty training ourselves. The following text is a broad summary of potential subspecialty training opportunities for 2017 to 2018, but it is not fully inclusive of all potential subspecialty avenues, including research and prevention. Lists of Accreditation Council for Graduate Medical Education (ACGME) programs can be found at the ACGME website (4).

1. *Interventional cardiology.* In total, there are 139 ACGME-registered programs across the country. Interventional fellowship is 1 of the few subspecialties that utilizes the Electronic Residency Application Service system. Currently, 87 programs are registered through this system, whereas the remaining 52 programs require direct communication with the program. In general, cardiology applicants may apply in the winter of their second general year, with most interviews being conducted between January and March. Programs are structured in either 1 or 2 years, with the latter usually being a combined structural year of training. There is a rolling admissions process, which typically fills 18 months prior to the start dates.
2. *Electrophysiology.* To date, there are 104 ACGME-accredited programs. Applications are all done through the respective program with information found on their website. Timetables vary by program; however, the vast majority of programs accept applications 18 months before the start date with a rolling admission process. Currently, programs are structured in either 1 or 2 years, with 1 year ACGME accredited and if applicable, the subsequent year non-ACGME accredited. However, the ACGME and the American Board of Internal Medicine (ABIM) are currently revising the competencies and program requirements for the added year of fellowship training. In the new structure, the total training time for ABIM certification in cardiovascular disease would be 5 years total—3 years of cardiovascular disease fellowship training and 2 years of electrophysiology training. This implementation is planned for 2017.
3. *Advanced heart failure and transplant.* Currently, 67 ACGME-accredited programs exist. Applications

are completed through the respective program with specifics regarding each program on their corresponding websites. Timetables vary by program, with programs accepting applications 8 to 20 months before the start date; however, the majority of programs accept admissions 15 months prior to start date with a rolling admission process. Programs are structured as an ACGME-accredited 1-year program.

4. *Noninvasive imaging.* A spectrum of imaging modality programs exists, including echocardiography, computed tomography, cardiac magnetic resonance (CMR) imaging, and nuclear medicine. These are not ACGME-certified programs, and the application process varies by institution. Some programs have combined modalities such as CMR/echo, CMR/computed tomography, and so on. Hence, the specifics of each program should be carefully investigated by the applicant. Programs are structured across 1 to 2 years, depending on the imaging subtype(s), with rolling admissions.
5. *Adult congenital heart disease.* The ABIM, American Board of Pediatrics, ACGME, and others have approved Adult Congenital Heart Disease as a 2-year fellowship with ABIM Board Certification. Currently, programs are undergoing ACGME accreditation, which is anticipated to be completed by 2017. Applications are usually accepted in the fall of the applicant's third year of training, with the expected start date of July of the following year. Applicants from both pediatric and adult cardiology general fellowships are permitted to apply.

Cardiology is a rapidly expanding specialty within internal medicine, and trainees undoubtedly can get lost among the external and self-imposed pressures to make decisions to subspecialize early in the fellowship process. It is imperative to remind trainees that a solid foundation in general training is requisite to be an adept clinician and make grounded decisions about advanced training. Trainees need to seek out guidance from mentors and senior fellows, gather information from resources, and explore options through varied clinical rotations. Although it is easy to get swept away in the fast-paced, pressure-filled environment surrounding us, we must remind ourselves that these decisions are lifelong choices with indefinite implications.

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RESPONSE: Staying Optimistic and Thoughtful in Choosing a Subspecialty

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Making decisions about future career options is an inherently stressful process at any stage of one's career. The underlying uncertainties about the future of cardiovascular practice, as well as several assumptions involved in this type of planning, are unsettling for physicians in general. This dilemma is further amplified when fellows-in-training (FITs) are faced with the need to explore training options in narrowly focused professional subspecialty fields within cardiology. These are choices involving investment of additional training time and with clear long-term career and personal implications. Dr. Yadlapati writes about various available options for advanced training after the completion of cardiovascular fellowship and offers important practical tips for FITs who are selecting a sub-subspecialty super fellowship track.

In my role as a training program director for the past 2 decades, I have observed this process keenly with my FITs, and I would like to add a few more observations to Dr. Yadlapati's advice. It is important at the outset to clarify whether the interest in a sub-subspecialty area is a short-lived fascination or an abiding love for the field. The decision to train in a sub-subspecialty is often a lifelong commitment to practice a narrowly focused medical art. As such, FITs should allow sufficient time to obtain reasonably long and up-close exposure to the clinical

practice of the given sub-subspecialty before making their final decisions. It would be prudent to view any apparent exclusivity, prestige, and novelty of a highly focused field as potentially short lived and not as a sustainable guarantee over time or lasting decades of clinical practice. It would be ideal if a certain natural aptitude or gift (dexterity, capacity for 3-dimensional visualization, and other such attributes often talked about in cardiovascular training) uniquely required by the sub-subspecialty is present in us besides a deep interest in that field. These are difficult tasks that call for self-reflection and require honest discussion between FITs and their trusted mentors.

An increasingly relevant consideration when selecting training options is the status of the job market (both academic and private sectors) for the field. It has become an increasingly common experience for new graduates in cardiovascular training to find that major constraints for highly desirable job positions exist in certain geographic areas. Although such hurdles can end up dampening our spirits, the overall state of cardiology practice continues to be strong at present, and job opportunities nationwide appear to be on the mend. As is often said, the art of caring for patients will never go out of fashion and will always stay in demand. That is why we decided to enter the medical profession in the first place.